ABSTRACT

The transmission of mechanic power from a driving pulley to a driven pulley using an endless belt, wherein the driving force is transmitted by friction between the belt and the pulleys. The driving belt is wound a few times around the pulleys as a result of which the contact angle is much larger than the usual contact angle of approximately 180 to 360°. As a result, the necessary tension in the low-tension part of the belt is very low whereas a very high circumferential force can nevertheless be transmitted. In this drive there are elements which make the belt move axially over the pulley with little friction, causing the wound part of the belt to remain in place. Due to the low belt pre-tension and the high belt force to be transmitted, the drive is highly suitable for continuous variable transmissions for various applications.